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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,452	12/14/2001	Ralph A. Mosher	D/A1286	1083

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EXAMINER

RHEE, JANE J

ART UNIT	PAPER NUMBER
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1772

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DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/014,452

Applicant(s)

MOSHER ET AL.

Examiner

Jane J Rhee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims an adhesive comprising a polymer and a plasticizer other than bis(dihydroxy diethylamino) triphenyl methane, bis(diethylamino)triphenyl methane, or dihydroxy tetraphenyl biphenylene diamine, which is a negative limitation that rendered the claim indefinite because it was an attempt to claim the invention by excluding what the inventor did not invent rather than distinctly and particularly pointing out what they did invent. In re Schechter, 205 F.2d 185, 98 USPQ 144 (CCPA 1953).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,5,6,12,14-16,18,20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Schlueter, Jr. et al.

Schlueter, Jr, et al. discloses an endless seamed flexible belt comprising a first end and a second end (figure 1) each of the first end and the second end comprising a

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plurality of mutually mating elements which join in an interlocking relationship to form a seam (figure 2 number 16), the belt comprising a substrate and the seam comprising an adhesive comprising a polymer (col.1 lines 49-51) and a plasticizer (col.1 line 51) other than bis(dihydroxy diethylamino) triphenylmethane, bis(diethylamino)triphenyl methane, or dihydroxy tetraphenylbiphenylene diamine (col.1 lines 49-51). Schlueter, Jr. et al. discloses that the plasticizer has the ability to hydrogen bond with the polymer (col.10 lines 27-28). Schlueter Jr. et al. discloses that the plasticizer is present in the adhesive in an amount of from about 0.1 to about 80 percent by weight of total solids (col. 5 lines 50-55). Schlueter Jr. et al. discloses that the adhesive further comprises electrically conductive fillers (col. 6 lines 50). Schlueter Jr. et al. disclose that the conductive filler is selected from the group consisting of carbon fillers, metal oxide fillers, polymer fillers, charge transporting molecules and mixtures thereof (col. 9 lines 6-17). Schlueter Jr. et al. discloses that the carbon filler is selected from the group consisting of carbon black, graphite, fluorinate carbon, and mixtures thereof (col. 9 lines 10-11). Schlueter Jr. et al. discloses that the electrically conductive filler is a metal oxide filler selected from the group consisting of titanium dioxide, tin oxide, indium tin oxide, iron oxide aluminum oxide, and mixtures thereof (col. 9 lines 5-10). Schlueter Jr. et al. discloses that the adhesive is crosslinked (col. 10 lines 39-42). Schlueter Jr. et al. discloses that the substrate comprises a polymer consisting of polyimide (col. 1 line 38). Schlueter Jr. et al. discloses that the belt is an intermediate transfer belt (col. 1 lines 11-12). Schlueter Jr. et al. discloses that the plurality of mutually mating elements are in the form of a puzzle cut pattern (col. 2 lines 61-64). Schlueter Jr. et al. discloses that the mutually

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mating elements comprise a first projection and a second receptacle geometrically oriented so that the second receptacle on the first end receives the first projection on the second end and wherein the first projection on the first end is received by the second receptacle on the second end to form a joint between the first and second ends (figure 3).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3,4,7-11,19, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlueter, Jr. et al. in view of Arnold et al. (4663371).

Schlueter Jr. et al. discloses that the belt comprises a first end and a second end (figure 1), each of the first end and the second end comprising a plurality of mutually mating elements which join in an interlocking relationship to form a seam (figure 1 number 11), the belt comprising a polymer and a plasticizer (col. 1 lines 49-51).

Schlueter Jr. et al. fail to disclose that the seam comprises an adhesive comprising a polyamide and a plasticizer selected from the group consisting of alcohol, amine, thiol, organic, and oligomer. Schlueter Jr. et al. fail to disclose that the plasticizer is selected from the group consisting of bisphenols, paratoluene sulfonamides, phosphates esters, castor oil, and mixtures thereof. Schlueter Jr. et al. fail to disclose that the polymer is a

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polyamide. Schlueter Jr. et al. fail to disclose that the adhesive is crosslinked using oxalic acid as a crosslinking agent. Schlueter Jr. et al. fail to disclose that the polyamide comprises a pendant group selected from the group consisting of methoxy, ethoxy and hydroxy pendant groups. Schlueter Jr. et al. fail to disclose that the pendant groups are methylene methoxy pendant groups. Schlueter Jr. et al. fail to disclose that the polyamide has a general formula wherein the constituent of nitrogen consists of hydrogen, alkyl having from about 1 to about 20 carbons, alkoxy having from about 1 to about 20 carbons, alkyl alkoxy having from about 1 to about 20 carbons and alkylene alkoxy having from about 1 to about 20 carbons, and wherein n is a number of from about 50 to about 1,000. Schlueter Jr. et al. fail to disclose that the nitrogen constituent is methylene methoxy group.

Arnold et al. teaches that the adhesive comprises polyamide and a plasticizer, bisphenol for the purpose of to increase the adhesion of the polyamide (col. 3 lines 59-61). Arnold et al. teaches that the adhesive is crosslinked using oxalic acid as a crosslinking agent for the purpose of adjusting the viscosity of polyamide polymer to the desired viscosity polymers (col. 2 lines 40-41). Arnold et al. teaches that the polyamide comprises methylene methoxy pendant groups and that the polyamide has a general formula wherein the constituent of nitrogen consists of hydrogen and a methylene methoxy group (col. 2 line 65) for the purpose of creating an improved adhesive composition (col. 1 lines 6-7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Schlueter Jr. et al. with the adhesive

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that comprises polyamide and a plasticizer, bisphenol in order to increase the adhesion of the polyamide (col. 3 lines 59-61) as taught by Arnold et al.

Also, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Schlueter Jr. et al. with the adhesive that is crosslinked using oxalic acid as a crosslinking agent in order to adjust the viscosity of polyamide polymer to the desired viscosity polymers (col. 2 lines 40-41) as taught by Arnold et al.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Schlueter Jr. et al. with the polyamide that comprises methylene methoxy pendant groups and that the polyamide has a general formula wherein in the constituent of nitrogen consists of hydrogen and a methylene methoxy group (col. 2 line 65) in order to create an improved adhesive composition (col. 1 lines 6-7) as taught by Arnold et al.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schlueter Jr. et al. in view of Pistoia (6322927).

Schlueter Jr. et al. discloses the belt described above. Schlueter Jr. et al. fail to disclose that the electrically conductive filler is a polymer filler such as polypyrrole. Pistoia teaches that the electrically conductive filler is polypyrrole (col.8 lines 13-14) for the purpose of creating a cell (col. 7 line 66).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Schlueter Jr. et al. with the

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electrically conductive filler that is a polymer filler such as polypyrrole in order to create a cell comprising a variety of electrolytes, current collectors and cathode compositions (col. 7 line 66).

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schlueter Jr. et al. in view of Yamasaki (5863626).

Schlueter Jr. et al. discloses the belt described above. Schlueter Jr. et al. fail to disclose that the electrically conductive filler is a quaternary ammonium salt. Yamasaki teaches that the electrically conductive filler is a quaternary ammonium salt for the purpose of creating an electrically conductive polyurethane foam (col. 1 lines 24-25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Schlueter Jr. et al. with the electrically conductive filler is a quaternary ammonium salt in order to create an electrically conductive polyurethane foam (col. 1 lines 24-25) as taught by Yamaski.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 703-605-4959. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for




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the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Jane Rhee  
April 4, 2003



HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

4/17/03